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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,544	04/13/2007	Francis Phillip Chatfield	M03B167	9066

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Edwards Vacuum, Inc.
2041 MISSION COLLEGE BOULEVARD
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SANTA CLARA, CA 95054

EXAMINER

STIMPert, PHILIP EARL

ART UNIT	PAPER NUMBER
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3746

NOTIFICATION DATE	DELIVERY MODE
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11/12/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LORETTA.SANDOVAL@EDWARDSVACUUM.COM

Office Action Summary	Application No. 10/578,544	Applicant(s) CHATFIELD, FRANCIS PHILLIP	
	Examiner Philip Stimpert	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/26/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,244,841 to Schofield et al. (Schofield hereinafter) in view of US Patent 5,028,205 to Kapadia et al. (Kapadia).

3. Regarding claim 1, in Fig. 3, Schofield teaches a vacuum pump comprising a pumping mechanism (2A), a drive shaft (3), a gear box (5) connected to the shaft to rotate it (col. 4, ln. 56-63), and pressure control means (21, 23, 24) defining a path (22) to allow fluid to flow from the pumping mechanism (2A) to the gear box and to reduce the pressure difference therebetween (col. 5, ln. 35-39), and a reservoir (between 21 and 24). Schofield also recognizes that oil may escape the gearbox and need to be returned thereto (col. 5, ln. 48-52). Schofield does not teach that oil is returned to the gearbox (5) via a conduit separate from a fluid passage around the drive shaft. Kapadia teaches a shaft seal for a rotating shaft in a compressor or the like (see abstract), and in particular teaches that a reservoir (26) is provided to collect oil (27) which passes a seal (18), and a passage (32) to return it to the chamber (14) from which is escaped. Kapadia teaches that this prevents further leakage of the oil within the machine (col. 2, ln. 11-20). Therefore, it would have been obvious to one of ordinary skill in the art at the

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time of the invention to use one of the regions between constrictions in Schofield's shaft seal as a reservoir to collect oil, and to return it to the gearbox via a separate conduit as taught by Kapadia, in order to prevent leakage of the oil into the pumping mechanism.

4. Regarding claim 2, Schofield teaches that the pressure control means are restrictions.

5. Regarding claims 3 and 4, Schofield teaches that there are two chambers (23 and adjacent chamber between 21 and 24) proximate the pumping mechanism and the gear box.

6. Regarding claim 5, Schofield teaches a second path (30) to allow fluid to flow from the gear box (5) to the pumping mechanism (2A) to reduce the pressure difference therebetween.

7. Regarding claim 6, Schofield teaches that the second path is defined in part by a bore (30) within the shaft (3).

8. Regarding claim 7, Schofield teaches a fluid inlet (32) proximate the gear box and a fluid outlet (31) proximate the chamber.

9. Regarding claim 8, Kapadia teaches a non-return valve (34) provided between the reservoir and the gearbox in the combination, which is arranged to be opened by pressurized fluid flowing toward the gearbox.

10. Regarding claim 9 and 18, Schofield teaches that a part of the path (30) is defined by a conduit (30) extending between the pumping mechanism and the gear box (5) and having a filter (33) for removing particulates.

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11. Regarding claims 10-12, Schofield teaches a second path (30) to allow fluid to flow from the gear box (5) to the pumping mechanism (2A) to reduce the pressure difference therebetween.

12. Regarding claims 13-17, Kapadia teaches a non-return valve (34) provided between the reservoir and the gearbox in the combination, which is arranged to be opened by pressurized fluid flowing toward the gearbox.

Response to Arguments

13. Applicant's arguments with respect to claim anticipation have been considered but are moot in view of the new ground(s) of rejection.

14. The Information Disclosure Statement filed 26 August 2010 has been considered, and the references filed therewith effectively cure the defects noted in the previous Office Action.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Stimpert whose telephone number is (571)270-1890. The examiner can normally be reached on Mon-Fri 7:30AM-4:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746

/P. S./
Examiner, Art Unit 3746
4 November 2010